



SCP-ASXP5 Switch Control Processor Release Notes

Software Version 5.1.x

**MANU0269-01
12/3/97**

Legal Notices

FORE Systems, Inc. makes no representations or warranties with respect to the contents or use of this manual, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, FORE Systems, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Copyright © 1997 by FORE Systems, Inc. - Printed in the USA.

All rights reserved. No part of this work covered by copyright may be reproduced in any form. Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws. The information in this document is subject to change without notice. You must reproduce and maintain the copyright notice on any copy you make or use of the Programs.

RESTRICTED RIGHTS LEGEND

Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (October 1988) and FAR 52.227-19 (June 1987).

TRADEMARKS

FORE Systems, and *ForeRunner* are registered trademarks of FORE Systems, Inc. *ForeThought*, *ForeView*, *CellPath*, and *PowerHub* are trademarks of FORE Systems, Inc. All other brand or product names are trademarks of their respective holders.

TABLE OF CONTENTS

| | |
|---|---|
| 1.0 GENERAL DESCRIPTION OF RELEASE | 1 |
| 2.0 SYSTEM REQUIREMENTS | 1 |
| 3.0 NEW FEATURES | 1 |
| 4.0 SPECIAL INFORMATION | 1 |
| 4.1 SCP-ASXP5 Switch Control Processor Installation | 1 |
| 4.1.1 Backing Up the Configuration Database | 2 |
| 4.1.2 Dual SCP Upgrade Considerations | 2 |
| 4.1.3 Removing an SCP | 3 |
| 4.1.4 Installing an SCP | 4 |
| 4.1.5 Restoring the Database | 4 |
| 4.2 Ferrite Cable Installation | 5 |
| 4.2.1 Required Hardware | 5 |
| 4.2.2 Installing the Ferrite Cable | 5 |
| 4.3 CPU Display | 5 |
| 5.0 CONTACTING TECHNICAL SUPPORT | 6 |

TABLE OF CONTENTS

1.0 General Description of Release

This document highlights the features and operational concerns of the SCP-ASXP5 Pentium-based switch control processor (SCP).

2.0 System Requirements

The following lists the system requirements for the Pentium-based SCP:

- The Pentium-based processor is supported by the *ForeRunner* ASX-200BX and ASX-1000 ATM Switches and by the TNX-210 and TNX-1100 ATM Switches.
- The software installed on the Pentium-based SCP is *ForeThought* 5.1.x, which includes support for the new SCP hardware. The SCP is shipped with this release of *ForeThought* software. An attempt to run earlier versions of software on the Pentium-based SCP or an attempt to run the i960-based tarfile of *ForeThought* 5.1 on a Pentium-based SCP will result in a failed software upgrade.

3.0 New Features

The following is a list of the new features available for the Pentium-based SCP:

- Pentium processor with MMX technology
- 66MHz local bus
- 64MB DRAM
- 8MB of FLASH

4.0 Special Information

4.1 SCP-ASXP5 Switch Control Processor Installation

You must back up the configuration database (CDB) on the existing SCP before installing the Pentium-based SCP into your switch. Once the Pentium-based SCP has been installed, you can restore the saved CDB. Follow the procedure below:

CAUTION



Failure to backup and restore your CDB will result in lost configuration data.

4.1.1 Backing Up the Configuration Database

These commands let the user make a backup of the CDB. If you have configured the transfer protocol to be FTP using `conf system protocol`, you only need to enter the command `oper cdb backup` to perform the CDB backup. After you enter this command, you are prompted for the remote userid and password of the remote host to which you are backing up the file.

If you have configured the transfer protocol to be TFTP (this is the default) using `conf system protocol`, the remote host to which the file will be backed up must be running the TFTP daemon or server. If you are unsure of how to do this, see the ATM Switch Installation and Maintenance Manual for your switch.

If you are using TFTP to perform the CDB backup, you must first create an empty file in the `/tftpboot` directory on the remote host to receive the CDB. Use the `touch` UNIX command to do this. Then, use the `chmod` command to change the permissions of that file so that it will let the switch write the backup CDB to that file.

Perform the following steps to back up your CDB:

1. First, telnet to your remote host and log in.
2. Enter the following UNIX commands in sequence on the host:

```
cd /tftpboot
touch <backup file name>
chmod 777 <backup file name>
```

3. Then exit from the telnet session.
4. Telnet to the switch and log into the ATM Management Interface (AMI).
5. Enter the following command:

```
oper cdb backup <host>:/tftpboot/<backup file name>
```

You should receive the following message:

```
CDB backup was successful
```

Your backup file now resides in the file on the host you specified.

4.1.2 Dual SCP Upgrade Considerations

When using dual SCP configuration, you must either use two i960-based HA SCPs or two Pentium-based SCPs. Do not use one of each.

When upgrading from an i960-based HA to the Pentium-based SCP, you must remove both i960-based HAs before installing a Pentium-based SCP.

4.1.3 Removing an SCP

The following procedure explains how to remove an SCP from a switch fabric.

WARNING!



It is highly recommended that you use a grounding strap when handling the SCP or any other switch component.

Do not attempt to remove or replace an SCP without first removing all connections to the SCP (i.e., serial or Ethernet connections).

The i960-based HA and the Pentium-based SCP are hot-swappable ONLY if replacing the SCP with the same type (HA to HA or Pentium to Pentium).

1. Loosen the two captive fasteners on either edge of the SCP using a straight screwdriver.
2. Pull the SCP firmly and carefully using the two captive fasteners, removing the SCP from the switch fabric as shown in Figure 1.

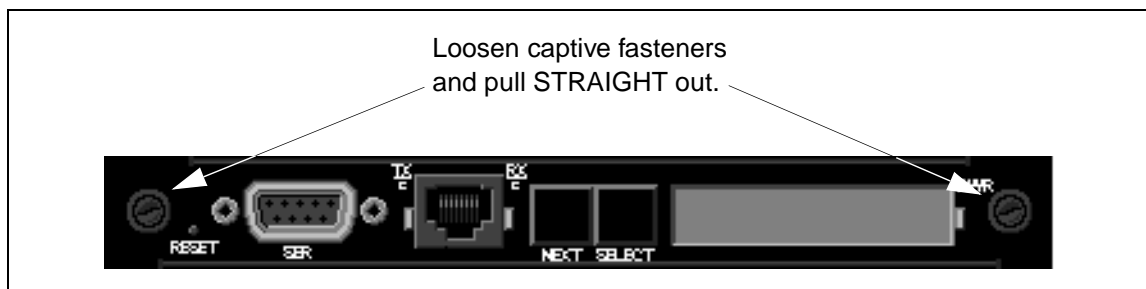


Figure 1 - Removal of an SCP

3. Set the old SCP aside.

4.1.4 Installing an SCP

The following procedure explains how to install the Pentium-based SCP into a switch fabric.

CAUTION



Take care to properly align the SCP in the card guides in the following step.

1. Insert the new SCP into the switch fabric by sliding it into the card guides.
2. Push firmly to seat the SCP in the fabric so that its faceplate is flush with the front of the switch.
3. Re-tighten the captive fasteners with a straight screwdriver to ensure the SCP is secure.



If the SCP was inserted properly, the SCP will run the DRAM test. If it does not, try to install the SCP again. If the problem persists, contact FORE Systems' Technical Support using one of the four methods described in Section 5 of this document.

4.1.5 Restoring the Database

To restore the CDB, you must connect a terminal to the Pentium-based SCP's serial port and start an AMI session. After logging in, you must configure the appropriate interface(s) that will allow you to connect to the remote host to which you backed up the CDB. For more information on configuring interfaces on the switch, see Section 2.7, "Configuring IP Addresses," in the ATM Switch Installation and Maintenance Manual for your switch.

Once you have configured the proper interfaces to allow a connection to the remote host, enter the following parameters at the prompt:

```
operation cdb restore <host>:<backup file name>
```

You will be prompted to verify this command, because the switch will be rebooted once the CDB has been restored. Type **Y** and press **<ENTER>** at the prompt.

Once the switch reboots, the PVCs will be re-established provided that none of the network modules were replaced after the SCP was removed, and provided that all of these steps have been performed properly.



If you have any questions about the above procedures, see Section 5 of these Release Notes for information about contacting FORE Systems' Technical Support.

4.2 Ferrite Cable Installation

When installing a Pentium-based SCP into an ASX-1000 or TNX-1100, each SCP is supplied with a ferrite cable, which must be attached to an Ethernet cable before inserting it into the Ethernet port on the SCP. The ferrite cable acts as an electromagnetic interference (EMI) shield. This protective shield is necessary to block radio frequency interference (RFI) signals emitted from the ATM switch.

This section provides the instructions necessary to install the ferrite cable.

4.2.1 Required Hardware

Before you begin, make sure you have one ferrite cable (provided by FORE) for each Pentium-based Switch Control Processor. If you do not, see Section 5 of these Release Notes for information about contacting FORE Systems' Technical Support.

4.2.2 Installing the Ferrite Cable

Perform the following steps to ensure proper installation of the ferrite cable:

1. Ensure that the SCP has been inserted properly into your FORE Systems ATM switch.
2. Insert your Ethernet cable (RJ-45 male connector) into the box-shaped assembly (RJ-45 female connector) at the end of the ferrite cable as shown in Figure 2.

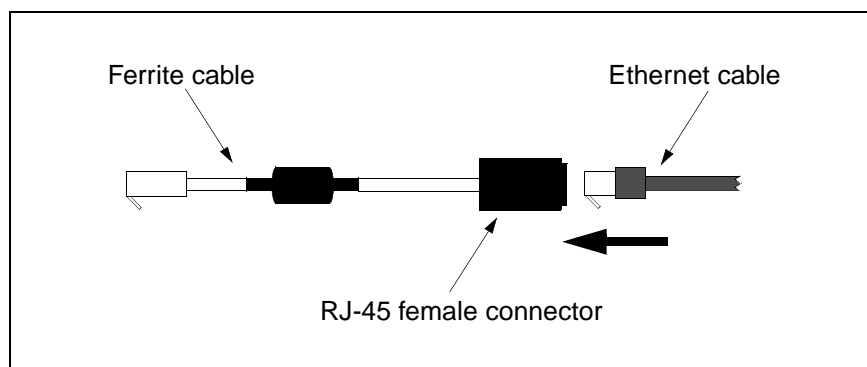


Figure 2 - Inserting a Ferrite Cable

3. Insert the connector end of the attached ferrite cable into the Ethernet port on the SCP just as you would a normal Ethernet cable.

4.3 CPU Display

The AMI command `oper env cpu` lets you display information about the CPU. If a Pentium-based SCP is installed, P55 is displayed in the Type field as follows:

```
myswitch:>> oper env cpu
CPU   Type      CpuStep State      DRAMSize  FlashSize  BoardRev  PromRev
1X    p55         68     normal    67108864  8388608    A         1.0
```

5.0 Contacting Technical Support

In the U.S.A., you can contact FORE Systems' Technical Support by any one of four methods:

1. If you have access to the Internet, you may contact FORE Systems' Technical Support via e-mail at:

support@fore.com

2. You may telephone your questions to "support" at:

800-671-FORE or 412-635-3700

3. You may FAX your questions to "support" at:

412-742-7900

4. You may send questions, via U.S. Mail, to:

**FORE Systems, Inc.
1000 FORE Drive
Warrendale, PA 15086-7502**

Technical support for non-U.S.A. customers should be handled through your local distributor.

No matter which method is used for technical support, please be prepared to provide the serial number(s) of the product(s) and as much information as possible describing your problem or question.